

WV-SP105 Network Camera WV-SP102



HD/1,280 x 960 H.264 Network Camera with 2x Extra Zoom (wv-sp105) VGA/640 x 480 H.264 Network Camera (wv-sp102)

Key Features

- 720p HD images up to 30 fps (WV-SP105 only)
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor (WV-SP105)
- Newly developed 0.32 Megapixel high sensitivity MOS Sensor (WV-SP102)
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by "UniPhier®", Panasonic's proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size (WV-SP105)
- Full frame (Up to 30 fps) transmission at VGA (640 x 480) image size (WV-SP102)
- 2x extra zoom under VGA resolution (WV-SP105 only)
- 2x, 4x digital zoom controlled by browser
- ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- High sensitivity with Simple Day/Night function:
 0.8 lx (Color), 0.4 lx (B/W) at F2.2 (WV-SP105)
 2.0 lx (Color), 1.3 lx (B/W) at F2.0 (WV-SP102)
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- Superior color reproduction by primary (RGB) color filter
- Electronic sensitivity enhancement:
 Auto (Up to 16x) / OFF (WV-SP105)
 Auto (Up to 8x) / OFF (WV-SP102)
- Selectable light control modes: Indoor scene (50 Hz) / Indoor scene (60 Hz) / ELC (maximum exposure time)
 Indoor scene (50 Hz/60Hz): Flicker caused by fluorescent lightning will be automatically compensated.
 ELC (maximum exposure time): The lightning control will be
 - automatically performed by adjusting shutter speed in the range of ELC.
- VMD (Video Motion Detector) with 4 programmable detection areas,
 15 steps sensitivity level and 10 steps detection size
- Meta data for VMD is supplied to work with the WJ-ND400 playback VMD function.

- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- Camera title display: Up to 20 alphanumeric characters on the browser,
 Up to 16 alphanumeric characters embedded in the image
- Alarm sources including VMD and Panasonic alarm command can trigger actions such as FTP image transfer, E-mail notification, Indication on browser, and Panasonic protocol output.
- JPEG Image compression ratio can be changed by alarm so that higher quality image can be provided.
- Prioritized stream control: One of the video streams can be prioritized when multiple recorders or client PCs are accessing the camera so that the recorder or the client PC can maintain the frame rate.
- H.264 max. bit rate/client and Total bit rate control allows flexible network traffic management. Frame rate priority mode controls bit rate and compression ratio to provide the specified frame rate.
- Internet mode: H.264 images can be transmitted over HTTP protocol.
- Multi-language GUI and setup menu: English, French, Italian, Spanish, German, Russian (PAL) / English, French (NTSC)
- IPv4/IPv6 protocol supported

Standard Accessories

| CD-ROM*1 | Washer |
|--------------------------------------|--|
| The followings are for installation. | *1 The CD-ROM contains the operating instructions (PDFs) and different kinds of tool software programs. *2 This label may be required for network management. The network administrator shall retain the code label. |

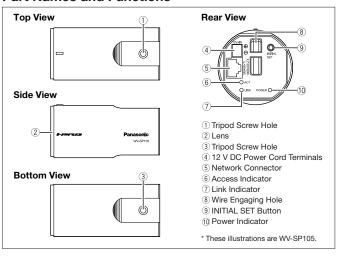
Specifications

| TV System | 1 | | NTSC | PAL |
|-----------|-------------------------------------|---|---|--|
| Camera | Image Sensor | | WV-SP105: 1/3 type MOS Sens | |
| | | | WV-SP102: 1/5 type MOS Sens | or |
| | Effective P | | | |
| | | | WV-SP102: Approx. 0.32 mega | oixel |
| | Scanning N | | Progressive scan | |
| | Scanning A | Area | WV-SP105: 4.8 mm (H) x 3.6 mi | |
| | | | WV-SP102: 2.69 mm (H) x 2.02 | mm (V) |
| | Minimum II | lumination | WV-SP105: | |
| | | | Color: 0.8 lx, B/W: 0.4 lx at F2.2 (Shutter: 1/30 s, AGC: High), | |
| | | | Color: 0.05 lx, B/W: 0.03 lx at F2.2 (Shutter: 16/30 s, AGC: High) WV-SP102: Color: 2.0 lx, B/W: 1.3 lx at F2.0 (Shutter: 1/30 s, AGC: High), | |
| | | | | |
| | | | | |
| | | | Color: 0.3 lx, B/W: 0.16 lx at F2.0 (Shutter: 8/30 s, AGC: High) | |
| | White Balance Light Control Mode | | AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K) Indoor [50 Hz]: Automatic integration of ELC (up to 1/100 s) Indoor [60 Hz]: Automatic integration of ELC (up to 1/120 s) | |
| | | | | |
| | | | | |
| | | | ELC (maximum exposure time): | |
| | | | WV-SP105: | |
| | | | 1/30, 3/100, 3/120, 2/100, 2/120, 1/100, 1/120, 1/250, 1/500, | |
| | | | 1/1,000, 1/2,000, 1/4,000, 1/10,000 | |
| | | | WV-SP102: | |
| | | | 1/30, 3/100, 3/120, 2/100, 2/120, 1/100, 1/120, 1/250, 1/500, | |
| | | | 1/1,000, 1/2,000, 1/4,000, 1/8,000 ON / OFF | |
| | Adaptive B | lack Stretch | | |
| | AGC | | ON (LOW, MID, HIGH) / OFF | |
| | Electronic S | Sensitivity UP | WV-SP105: | |
| | Zacarania consum, cr | | OFF, max. $2/30$ s, max. $4/30$ s, max. $6/30$ s, max. $10/30$ s, max. $16/30$ s WV-SP102: | |
| | | | | |
| | | | OFF, max. 2/30 s, max. 3/30 s, max. 4/30 s, max. 8/30 s | |
| | Simple Day | //Night Mode | AUTO / OFF | |
| | | se Reduction | High / Low | |
| | | | 4 areas, Sensitivity: 15 steps, Detection size: 10 steps | |
| | Privacy Zo | ne | Up to 2 zones, Gray | |
| | Camera Title (OSD) | | Up to 16 alphanumeric characters | |
| Lens | Zoom Ratio | 0 | WV-SP105: 2x with extra zoom (under VGA) WV-SP102: N/A | |
| | Digital (Electronic) Zoom | | 4x (Max. 8x combined with extra zoom under VGA (WV-SP105 only)) | |
| | Focal Length | | WV-SP105: 3.54 mm WV-SP102: 2.00 mm | |
| | | | WV-SP105: 1 : 2.2 WV-SP102: 1 : 2.0 | |
| | Focusing Range | | 0.5 m ~ ∞ | |
| | Angular Fie | | WV-SP105: H: 70.3°, V: 55.4° WV-SP102: H: 66.9°, V: 52.3° | |
| Browser | Display Mo | | Spot, Quad: Image from 16 cameras can be displayed in 4 different Quad | |
| GUI | , , | | screens or 16 split screen (JPEG only). 20 characters camera title available. | |
| | Camera Title | | Up to 20 alphanumeric characters | |
| | Clock Display | | Time: 12H / 24H, Date: 5 formats on the browser, Summer time (In /Out) | |
| | One Shot Capture | | A still picture will be displayed of | n a newly opened window. |
| | GUI/Setup Menu | | English, French | English, French, Italian, Spanish, |
| | Language | | (Installation required for French) | German, Russian (Installation |
| | | | | required except for English) |
| | System Log | | Up to 100 (Internal) | |
| | Supported OS | | Microsoft® Windows® 7 Profess | ional 64 bit/32 bit, |
| | Supported Browser | | Microsoft® Windows Vista® Business SP1 32 bit, | |
| | | | Microsoft® Windows® XP Professional SP3 The language of the OS must be same as selected GUI language. Windows® Internet Explore® 8.0 (Microsoft® Windows® 7 Professional 64 bit/32 bit), Windows® Internet Explorer® 7.0 (Microsoft® Windows Vista® Business SP1 32 bit), | |
| | | | | |
| | | | | |
| | | | | |
| | | | Microsoft® Internet Explorer® 6.0 SP3 (Microsoft® Windows® XP Professional SP3) | |
| Network | Network IF | | 10Base-T / 100Base-TX, RJ-45 connector | |
| | Image | Aspect ratio: | | |
| | | [4:3] | H.264: 1,280 × 960 / VGA (640 × 48 | 0) / QVGA (320 × 240), up to 30 fns |
| | nesolution | | | |
| | | | JPEG (MJPEG): 1 280 x 960 / V | GA (640 × 480) / |
| | *1 | | JPEG (MJPEG): 1,280 × 960 / V QVGA (320 × 240), up to 30 fps | GA (640 × 480) / |
| | | | QVGA (320 × 240), up to 30 fps | GA (640 × 480) / |
| | | | QVGA (320 \times 240), up to 30 fps WV-SP102: | , |
| | | | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA | (320 × 240), up to 30 fps |
| | | | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) | (320 × 240), up to 30 fps |
| | | Aspect ratio: | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps |
| | | | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps |
| | | Aspect ratio: | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps |
| | | Aspect ratio: | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps |
| | | Aspect ratio: | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps |
| | *1 | Aspect ratio: [16:9] | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps |
| | | Aspect ratio: [16:9] | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps |
| | *1 | Aspect ratio: [16 : 9] Transmission Priority | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 0 × 180, up to 30 fps |
| | *1 | Aspect ratio: [16:9] Transmission Priority Frame Rate | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 1 × 180, up to 30 fps 1/3/5/7.5/10/12/15/20/30 fps |
| | *1 | Aspect ratio: [16:9] Transmission Priority Frame Rate | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 0 × 180, up to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / |
| | *1 | Aspect ratio: [16:9] Transmission Priority Frame Rate Bit Rate/Client | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 0 × 180, up to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / |
| | *1 | Aspect ratio: [16:9] Transmission Priority Frame Rate Bit Rate/Client Image Quality | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate 1/3/5/7.5/10/15/20/30 fps 64 / 128 / 256 / 384 / 512 / 768 4,096 / 8,192* kbps / Unlimited LOW / NORMAL / FINE | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / * Only for WV-SP105 |
| | *1 | Aspect ratio: [16 : 9] Transmission Priority Frame Rate Bit Rate/Client Image Quality Refresh Interval | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate 1/3/5/7.5/10/15/20/30 fps 64 / 128 / 256 / 384 / 512 / 768 4,096 / 8,192* kbps / Unlimited LOW / NORMAL / FINE 0.2 s / 0.33 s / 0.5 s / 1 s / 2 s / | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / * Only for WV-SP105 |
| | H.264 | Aspect ratio: [16:9] Transmission Priority Frame Rate Bit Rate/Client Image Quality Refresh Interval Transmission Type | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate 1/3 / 5 / 7.5 / 10 / 15 / 20 / 30 fps 64 / 128 / 256 / 384 / 512 / 768 4,096 / 8,192* kbps / Unlimited LOW / NORMAL / FINE 0.2 s / 0.33 s / 0.5 s / 1 s / 2 s / UNICAST / MULTICAST | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 0 × 180, up to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / * Only for WV-SP105 3 s / 4 s / 5 s |
| | +1 H.264 | Aspect ratio: [16:9] Transmission Priority Frame Rate Bit Rate/Client Image Quality Refresh Interval Transmission Type Image Quality | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 640 × WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate 1/3/5/7.5 / 10 / 15 / 20 / 30 fps 64 / 128 / 256 / 384 / 512 / 768 4,096 / 8,192* kbps / Unlimited LOW / NORMAL / FINE 0.2 s / 0.33 s / 0.5 s / 1 s / 2 s / UNICAST / MULTICAST 0 SUPER FINE / 1 FINE / 2 / 3/4 / 5 NO | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps 0 × 180, up to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / * Only for WV-SP105 3 s / 4 s / 5 s |
| | H.264 | Aspect ratio: [16:9] Transmission Priority Frame Rate Bit Rate/Client Image Quality Refresh Interval Transmission Type Image Quality Transmission Type | QVGA (320 × 240), up to 30 fps WV-SP102: H.264: VGA (640 × 480) / QVGA JPEG (MJPEG): VGA (640 × 480) WV-SP105: H.264: 1,280 × 720 / 640 × 360 JPEG (MJPEG): 1,280 × 720 / 64 WV-SP102: H.264: 640 × 360 / 320 × 180, u JPEG (MJPEG): 640 × 360 / 320 Constant bitrate / Framerate 1/3 / 5 / 7.5 / 10 / 15 / 20 / 30 fps 64 / 128 / 256 / 384 / 512 / 768 4,096 / 8,192* kbps / Unlimited LOW / NORMAL / FINE 0.2 s / 0.33 s / 0.5 s / 1 s / 2 s / UNICAST / MULTICAST | (320 × 240), up to 30 fps / QVGA (320 × 240), up to 30 fps / 320 × 180, up to 30 fps 0 × 360 / 320 × 180, up to 30 fps p to 30 fps × 180, up to 30 fps 1/3/5/7.5/10/12/15/20/30 fps / 1,024 / 1,536 / 2,048 / 3,072 / * Only for WV-SP105 3 s / 4 s / 5 s RMAL / 6 / 7 / 8 / 9 LOW (10 steps: 0-9) |

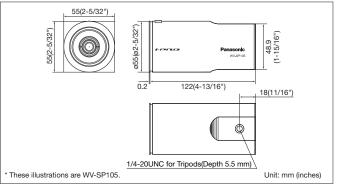
| TV System | | NTSC | PAL | |
|-----------|---------------------------|---|------------------------------|--|
| Network | Supported Protocol | IPv6: TCP/IP, UDP/IP, HTTP, RTP, FTP, SMTP, DNS, NTP, SNMP, | | |
| | | IPv4: TCP/IP, UDP/IP, HTTP, RTSP, RTP, RTP/RTCP, FTP, | | |
| | | SMTP, DHCP, DNS, DDNS, NTP, SNMP | | |
| | FTP Client | Alarm image transfer, Periodic image transfer | | |
| | No. of Simultaneous Users | Up to 14 users (Depends on network conditions) | | |
| Alarm | Alarm Source | VMD, Command alarm | | |
| | Alarm Actions | E-mail notification, Indication on browser, | | |
| | | FTP image transfer, Panasonic protocol output | | |
| | Schedule | VMD/Access permission | | |
| General | Safety/EMC Standard | UL (UL60950), FCC (Part15 ClassA), | CE (EN60950, EN55022 ClassB, | |
| | | C-UL (CAN/CSA C22.2 No.60950), | EN55024), GOST (GOST R 51558 | |
| | | DOC (ICES003 ClassA) | | |
| | Power Source/ | WV-SP105: | | |
| | Consumption | 12 V DC: approx. 200 mA, | | |
| | | PoE: approx. 2.8 W (IEEE802.3af compliant, Class 2 device) | | |
| | | WV-SP102: | | |
| | | 12 V DC: approx. 140 mA, | | |
| | | PoE: approx. 2.0 W (IEEE802.3af compliant, Class 2 device) | | |
| | Ambient Operating | 0 °C ~ +40 °C (32 °F ~ 104 °F), | | |
| | Temperature/Humidity | 90 % or less (without condensation) | | |
| | Dimensions | 55 mm (W) x 55 mm (H) x 122 mm (D) (2-5/32" (W) x 2-5/32" (H) x 4-13/16" (D)) | | |
| | | (excluding connectors/terminals) | | |
| | Mass (approx.) | WV-SP105: 180 g (0.40 lbs.) WV-SP102: 170 g (0.38 lbs.) | | |

*1 [4:3] and [16:9] are alternative.

Part Names and Functions



Appearance



Trademarks and registered trademarks

- Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- Microsoft, aird windows are registered trademark of Panasonic Corporation.

 "Super Dynamic", "SDII", "SDII", "SD5!", "SD5Link", "i-PRO" and "i-PRO SmartHD" logos are trademarks or registered trademarks of Panasonic Corporation.

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
 Panasonic can not be responsible for network performance and/or other manufacturer products that
- reside on the network.
 - · All TV pictures are simulated.
 - Masses and dimensions are approximate.

 - Specifications are subject to change without notice.
 These products may be subject to export control regulations.
 All product pictures are NTSC models.

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